

# Hazardous Waste and Its Impacts

## Hazardous Waste

- Hazardous waste is waste that is dangerous to humans and/or the environment. Substances can be
  - Toxic: Causing harm or death.
  - Chemically active: Causing unwanted chemical reactions (e.g. explosions).
  - Corrosive: Destroying other things through chemical reactions.
  - Flammable: Easily catching fire, and may release dangerous smoke.
- We use many chemicals in our daily lives that could be potentially hazardous waste if not disposed of properly.

### Study Tip

One drop of trichloroethylene can contaminate an Olympic swimming pool. Water with trichloroethylene can easily cause leukemia and other illnesses in children.

Type of Hazardous Waste	Example	Why it is Hazardous
Chemicals from the automobile industry	Gasoline, used motor oil, battery acid, brake fluid	Toxic to humans and other organisms; often chemically active; often flammable.
Batteries	Car batteries, household batteries	Contain toxic chemicals; are often corrosive.
Medical wastes	Surgical gloves, wastes contaminated with body fluids such as blood, x-ray equipment	Toxic to humans and other organisms; may be chemically active.
Paints	Paints, paint thinners, paint strippers, wood stains	Toxic; flammable.
Dry cleaning chemicals	Many various chemicals	Toxic; many cause cancer in humans.
Agricultural chemicals	Pesticides, herbicides, fertilizers	Toxic to humans; can harm other organism; pollute soils and water.

## Impacts of Hazardous Waste

- After discovering dangerous levels of hazardous waste at the Love Canal, the government passed the **Superfund Act** in 1980. This law requires companies to clean up after their toxic waste. Love Canal became a **Superfund site**, where proper clean up of toxic waste was administered.
- Hazardous waste can be invisible, until its effects are seen through cancer and birth defects among humans. As a result, people might not discover contamination until they see an irregularly large group of people getting cancer, called a cancer cluster.

- The United States banned lead in gasoline and paint due to it easily damaging the brain and nervous system, especially in children.
- Mercury is a toxic metal that can easily spread through volcanic eruptions, coal burning, and electronic waste.

## Concept Check

- What is hazardous waste? What are some common things that might become hazardous waste?
- What is the Superfund Act of 1980?
- What are some impacts of hazardous waste?

